/185 cont./

*171 302 822 more sparingly and could not by any means conceive why he did not use it merely to bring out the other colors better. He wears feather caps, which look most charming, of pure white with a few, small yellow-red feathers in between.

*171 302 ● 386 The chalky, fine-grained clay is not suitable for the design-painting of the body. If it were mixed, like charcoal, with the yellowish oil, it could likewise be applied in lines, but the white color would be lost. Mixed with water, however, the lines would be very impermanent and mostly fall off when dry. On the masks, white furnishes only the background or appears in wide stripes on the most artless ones. On the other hand, if the native used his pigment for body adornment primarily for the sake of the color effect, nothing would prevent him from beautifying himself with white also, by powdering himself over large areas with the clay. Thus the thighs of the string-twisting women are chalk-white; moreover, the fine, flour-dust, with which the women who bake beijú are often covered white, would be available to him. But neither the white baker-woman nor the Indian daubed red or black over large areas /186/ has dressed himself up this way in order to adorn himself. This is everyday clothing, not Sunday attire.

*171 302 751 The question thus is: of what use is the daubing? As is well known, and as I know very well from my long experience of going barefoot, the mud has a cooling effect; it is extremely pleasant in the heat to keep the skin moist. In particular it cools stung spots, and it protects the ones stung from the mosquitoes, whether it be red, yellow, black, or white. I cannot believe that whenever a person waded through the mud of the shore, he seemed particularly adorned because of it; it may be different on other soil, where the earth colors are more unusual. In our territory, at any rate, the agreeableness for the skin takes precedence over that for the eye. The Indian has replaced the mud with oil, but a finely powdered addition is said to make it more consistent and sticky, and this addition is a [822] pigment, soot and urucú red. Undoubtedly the Bakaïrí like the red better, since they did not have to tend and cultivate the plant if the soot were just as pretty, and within these limits one adorns himself also by daubing himself.

/239 cont./

286 ropes is produced, and, on the other hand, the longitudinal
352 threads, uncrossed here for a length of 30-35 centimeters, diverge from this fixed point toward the net when it is stretched out.

*151 Besides this typical cotton hammock, there is a hammock
286 in which the warp consists of buriti palm-fiber thread and only
352 the woof is of cotton. And, to be sure, this cotton woof may be limited to only a few transverse threads, which ran at intervals of 10-20 centimeters among the Mehinakú. The buriti hammock is native among the Nu-Aruak tribes. The docile Bakaïrí on the Paranatinga also had it, and they told me that their old chief, Caetano, had first introduced it. The palm-fiber hammocks were usually of the same length or even longer (up to two and three-fourths meters) than the cotton hammocks, but not one meter wide, so that the comfortable diagonal position which the Brazilian quite rightly likes to assume was almost impossible.

A third type was produced by the more abundant use of cotton. Thus, among the Auetō, we saw all the transitions from a space of six to seven centimeters between the /240/ cotton transverse threads to a space of one or two centimeters, or even half a centimeter. Finally, however, the cotton threads were pressed so closely together that one could no longer see the palm fiber, and a strong cloth, worked almost as tightly as sailcloth, was produced. Here the palm-fiber longitudinal thread, about one and a half millimeters wide, was wound with two pairs of cotton transverse threads that crossed, not singly, but doubled, between it and the next longitudinal thread. Naturally, the long sides of the hammock were densely studded with knots; at the four ends the strands were allowed to hang down a bit and
[386] ended in tassels. In many cases, at intervals of about 40 centimeters, bluish-black transverse stripes were achieved by the use of dyed cotton. Otherwise all hammocks were brown; the cotton hammock, as well as the one of palm fiber, which was already light brown in its natural color, was colored a dirty brown by the bodies oiled with urucú red.

B /241 cont./
*171 into bowls, the fresh fruits are wound with palm fiber and scratched
415 along it with a shell. If a bowl cracks during use, it is sewed;
B [412] the small holes are bored with the pointed tooth of the dogfish
and the sewing is done with a buriti thread rubbed with wax, the
knots of which are cut off close to the shell by the tooth edge
B [531] ground knife-sharp. The drawings that decorate the surface are
incised with the same tooth, unless one prefers to burn them in
B with a red-hot stick. The drinking bowls and small ladle-gourds
● [384] or spoons are given a coating of black lacquer on the inside. The
[824] lacquer is the soot of the charred buriti shaft mixed with the
yellow, sticky liquid extract of the grated rind of the ochogohi
tree from the campo cerrado /densely covered campo/. Special
small, spherical gourds served to hold the oil with which the body
was rubbed and were closed with a stopper; the Bakairí called
B [128] the fruit péru. They sometimes hung in a closely plaited net. I
shall consider the rattle gourd in connection with the dance music.

B 128 323 Pottery. In the chapter on the "Stone Age" culture, cf. pages 217 ff., I have discussed in detail the origin of the pots in our region, the monopoly of the Nu-Aruak tribes, and the manufacture limited to only the female sex. Only in the later chapter on the plastic arts, when the development of Indian art has become clear, shall I be in a position to speak of the ornamental aspect of the pots.

B
*172 Three types of pots were distinguished according to size and
415 purpose. First, the huge mawukúru of the Mehinakú, in which
W [415] the grated mandioca root was cooked, they had a diameter of
[252] almost three-fourths of a meter. We were unable to bring home
[126] any of these pots, but took a photograph among the Auetó, from which their shape and, since a man -- by rights it should have been a woman -- is squatting beside it, also their size are clear. Cf. Plate 15 /see p. 253/. The largest and most attractive pots are furnished by the Waurá. For cooking they were set on three low clay feet of cylindrical shape and bulging at the bottom.

A second type, the cooking pot for fruit and small fish, had a diameter of 18-20 centimeters, a height of about 12 centimeters; it was round with rather steep, slightly bulging walls and sometimes had a rim two and a half centimeters wide and

/329 cont./

*171 239 301 All feather ornamentation, except for an occasional feather stuck in the ear, especially among the Bakaïrí, belongs to festive occasions, including the solemn reception. It is the same with the feathers as with the body painting.

*171 524 Children's games. Among the Bakaïrí we saw catch-balls wadded together out of maize straw; instead of the usual long feather, a tail of maize straw was tied inside. There were rubber balls, huge ones, among the Auetó. The sap of a figueira /Ficus/ [314] or the mangabeira is rolled into a little ball on the chest, steeped in water with ashes, and the ball punctured all around in such a way that on the outside it looks as though it were covered with ● [386] plaiting. The balls are dyed red with urucú.

[824] Tops were made from the unripe peanut (Arachis hypogaea) or mandubí. Twice as big as a cherry, it was pierced and pushed onto a small bamboo stick so that only a small part of the latter emerged, and here it was wound with a tuft of cotton flocks to prevent it from sliding off. The fruit would spin upward on the long handle. Several such tops were set in a pot and made to spin together.

[526] We must count the wrestling described on page 93 among the games of the adults, but children liked to practice wrestling. The same was true, of course, of shooting the bow. We also saw children's throwing-sticks. Older children played with the heavy clay dolls. I was asked several times to perform a sort of test of strength in that I was supposed to lift a boy up in the air with my free arm. I may add here the observation that the Indians were unable to balance a pole on one finger.

/330/

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Chapter XII.

I. Law and Custom. II. Magic.

I. Property. Kinship. Marriage. Morals. Barter. Names. Birth. Couvade and its explanation. Burial.

II. Sorcery in various stages and on various levels of culture. Dream experiences. Pars pro toto. Good and bad medicine-men.

/418 cont./

802 196 reach back only to the proof of the origin from manual work, to make an uninterrupted chain of inductive evidence.

In Tupí "2" is mokõi, made up with the causative mo-; koi is translated "pair." Thus "2" = "makes pair." But what is koi? Now strangely enough, kopi -- the exact equivalent of the Bakaïrí sake -- means "to chop wood"! Between the two vowels in koi a softened consonant has been dropped; let us assume it arose from koui, kobi, which would be a very common process, and we would have the same origin of "2" as would be conceivable in Bakaïrí.

Finally I must also consider "tokále," "1." It is made up of "toka" and the augmentative particle "-le." "tóka" means "bow." Since each man has only one bow, or since many arrows go with one bow, the bow is the simplest example for "1" among all the implements. The derivation is a bit questionable because it is almost too perfect. To be sure, "toka" is so constructed phonetically that, according to the phonetic laws prevailing in the Bakaïrí, it need not change. It seems very striking that there are so few equivalents for "tokále" among the Karaiben of the north; they are fewer in number than those for "ahewão" and far fewer than those for "ahãge." It is surely permissible to exclude coincidence here and to see in this circumstance, as regards language as well, evidence that actual, conceptual counting began with the "2."

II. Color Words

000 Available dyestuffs. Corresponding to the number of color words. Strange statements intelligible through etymology. Dyestuffs older than the need for color words. Use in connection with the names of animals and plants. Green never = blue-black.

196 Color words, no less than number words, show how development depends on interest.

191 ●386 As has already been mentioned, the following dyestuffs are used on the Schingú /Xingu/.

/418 cont./

171 386 [283] White is chalky white clay, a supply of which is kept in the huts in the form of balls the size of a child's head. The women, when they spin, rub it on the right thigh, on which they twist the thread. It is simply mixed with water. It is never used to paint the body; it also falls far back for the implements and appears almost solely on the masks, the painting of which need last but a few days, on painted bark pieces, and the like.

/419/ Charcoal and soot, the berry-pulp of the genipap tree, (Genipa) and a number of resins furnish black. In order to blacken the inside of the gourd shells charcoal from the bark of the buriti shaft is used.

[262] [324] [304] The yellowish-red to brownish-red loam seems to have been driven out by the urucú dyestuff. It was formerly eaten and is still molded into heavy dolls for children and is rubbed on wounds for scarification.

[824] Charcoal and soot are rubbed in directly, like the white, or they are also mixed with liquid, like the urucú. Either the oil from the pikí fruit (Caryocar butyrosum) is used, or the yellow extract containing caoutchouc from a tree of the campo cerrado, which the Bakaïrí call ochogohi and the bark of which is grated and made into an extract with water. The colors are mixed in a gourd shell or a pot or, when a hard resin is broken up with the ax blade, most conveniently in the cup-shaped depression of a stool. Urucú is always found as a paste wrapped in leaves in the little workbasket beside the hammock.

The dyestuffs available to the natives are therefore white, black, red, and yellow. The genipap-black is blue-black, the urucú-red a brick-red to orange, which, mixed with the yellow ochogohi juice, loses a good deal of its red. There are no blue or green dyestuffs.

121 196 The theory that the color sense developed gradually for human beings, based on the fact that color distinction in language is inadequate up to a high level of culture and that blue and green in particular are extraordinarily often designated with the same word, has now been abandoned. It was found among all the primitive peoples investigated that they distinguish excellently

/422 cont./

171 192 825 boa-snake which Martius calls "viridis vel azureus Coluber aestivus L." The ordinary distinctions according to color, the number of which is smaller than one would expect, are black, white, red, and yellow; without placing any importance on absolute accuracy, I count 28 birds, 23 fish, 9 mammals, 4 snakes, and 12 lower animals which are differentiated according to those four colors. But now two more words occur for "colorful" /bunt, "gay-colored, mixed, spotted"/, one of which, pinima, with the verb "to paint" of the same stem, is used for fish, three birds, the jaguar, one snake, one lizard, one crayfish, and the other, paragoa, means simply "parrot" and also furnishes a parrot-fish and a parrot-snake. Pure "green" is always parrot-colored or parakeet-colored; where a "blue" is to be distinguished, the animal is also given the additional word una (burned) = black or dark.

171 192 It cannot be expressed more clearly that the Indian is induced to make a sharp color-distinction only when it is a matter of color qualities familiar to him from the dyestuffs, in other words, that his own experience, not his sense of color, furnishes the material for the sharply defined concepts.

171 192 824 The list of plant names by Martius, somewhat over 1000 in number, offers an interesting comparison. Eight plants are given the title black, 7 white, 7 red, 2 yellow. It is obvious that among the plants "green" does not form a distinguishing mark. Yet here, too, we come across on one occasion the cugui or "parakeet-colored," sometimes translated "green," sometimes "blue," and, to be sure, it corresponds to /423/ a specific blue, since it refers to Indigofera anil L. Three plants are "colorful," but "pinima"; the parrot-colorfulness (paragoa) is lacking.

171 386 The natives could have obtained indigo from the plant just mentioned, but they did not know how. Martius asserts that in the manufacture of indigo the Brazilian industrialists use Indian labor, that it was first introduced by the Portuguese and produces a not very desirable kind. Genipap-black has a blue tinge and thus corresponds very well to the referring of blue to black in the color designations. The blue of the tattooing also comes from the black.

[192] [304]